

WHAT IS CLAIMED IS:

1. A watercraft comprising a plurality of engines, a plurality of starting devices, each starting device coupled with a respective engine to power the associated engine for starting, a control device that controls the starting devices, a common operating device that provides the control device with at least an initiation signal to activate the starting devices, and a sensing device that separately senses an individual start completion state of each engine, the control device activating each starting device when the operating device provides the initiation signal and deactivating each starting device in response to the sensing device sensing the individual start completion state of the respective engine.

2. The watercraft as set forth in Claim 1, wherein the operating device comprises a switch mechanism that is operable by an operator, the switch mechanism providing the control device with the initiation in response to operator activating the switch mechanism, the control device deactivating each starting device in response to the sensing device sensing the individual start completion state of the respective engine during a preset time period or deactivating the starting devices when the preset time period elapses.

3. The watercraft as set forth in Claim 2, wherein the control device delays deactivating the each starting device for a second preset time period when the sensing device senses the individual start completion state of the each engine.

4. The watercraft as set forth in Claim 1, wherein the operating device comprises a switch mechanism that is operable by an operator, the switch mechanism provides the control device with the initiation signal when the operator start operating the switch mechanism, the control device deactivates the each starting device when the sensing device senses the individual start completion state of the each engine during a time period such that the operator continues operating the switch mechanism or deactivates the starting devices when the operator stops operating the switch mechanism.

5. The watercraft as set forth in Claim 4, wherein the control device delays deactivating each starting device for the time period when the sensing device senses the individual start completion state of the corresponding engine.

6. The watercraft as set forth in Claim 1 additionally comprising a network, the sensing device creating data based upon a signal indicative of the individual start completion state of each engine and transferring the data to the control device on the network, the control device controlling the starting devices based upon the data.

7. The watercraft as set forth in Claim 1 additionally comprising a network, the operating device creating data including at least the initiation signal to activate the starting devices and transferring the data to the control device over the network, the control device activating each starting device based upon the data.

8. The watercraft as set forth in Claim 7 comprising a plurality of the control devices, each control device controlling a respective starting device.

9. The watercraft as set forth in Claim 1 additionally comprising a network, the operating device creating first data including at least the initiation signal to activate the starting devices and transferring first data to the control device through the network, the sensing device creating second data based upon a signal indicative of the individual start completion state of each engine and transferring the second data to the control device over the network, the control device activating each starting device based upon the first data and controlling the starting devices based upon the second data.

10. The watercraft as set forth in Claim 1 additionally comprising a network that has at least first and second nodes, the first node acting as the control device, the second node at least in part acting as the sensing device or mediating between the control device and the sensing device.

11. The watercraft as set forth in Claim 1 additionally comprising a network that has at least first and second nodes, the first node acting as the control device, the second node at least in part acting as the operating device or mediating between the control device and the operating device.

12. The watercraft as set forth in Claim 1 additionally comprising a network that has at least first, second and third nodes, the first node acting as the control device, the second node at least in part acting as the sensing device or mediating between the control device and the sensing device, and the third node at least in part acting as the operating device or mediating between the control device and the operating device.

13. The watercraft as set forth in Claim 1, wherein each starting device includes a starter motor coupled with a crankshaft of a respective engine.

14. The watercraft as set forth in Claim 1, wherein the sensing device senses the individual start completion state of an engine at least in part by determining whether an engine speed is equal to or greater than a preset engine speed.

15. The watercraft as set forth in Claim 1 comprising a plurality of outboard motors detachably mounted on a hull of the watercraft, each outboard motor incorporating a respective engine.

16. A watercraft comprising a plurality of engines, a plurality of starting devices, each starting device coupled with a respective engine to power the associated engine for starting, a control device that controls the starting devices, a common operating device that provides the control device with an activation allowable time period or an initiation timing to initiate the activation allowable time period, and a sensing device that separately senses an individual start completion state of each engine, the control device activating the starting devices during the activation allowable time period, the control device deactivating each starting device separately and in response to the sensing device sensing the individual start completion state of the respective engine.

17. The watercraft as set forth in Claim 16, wherein the control device comprises a timer to count the activation allowable time period when the operating device provides the control device with the initiation timing to initiate the activation allowable time period.

18. The watercraft as set forth in Claim 16, wherein the control device delays deactivating each starting device for a preset time period when the sensing device senses the individual start completion state the respective engine.

19. The watercraft as set forth in Claim 16, wherein the operating device comprises a switch mechanism that is operable by an operator, the switch mechanism providing the control device with the activation allowable time period or the initiation timing to initiate the activation allowable time period.

20. An engine starting system for multiple engines, each engine having a starting device to power the engine for starting, the system comprising a control device that controls the starting devices, a common operating device that provides the control device with at least an initiation signal to activate the starting devices, and a sensing device that separately senses an individual start completion state of each engine, the control device activating each starting device when the operating device provides the initiation signal and deactivating each starting devices in response to the sensing device sensing the individual start completion state of the corresponding engine.

21. The engine starting system as set forth in Claim 20, wherein the operating device comprises a switch mechanism that is operable by an operator, the switch mechanism providing the control device with the initiation signal when the operator starts operating the switch mechanism, the control device deactivating each starting device if either the sensing device senses the individual start completion state of the respective engine or the preset time period elapses.

22. The engine starting system as set forth in Claim 20, wherein the operating device comprises a switch mechanism that is operable by an operator, the switch mechanism providing the control device with the initiation signal when the operator activates the switch mechanism, the control device deactivating each starting device if the sensing device senses the individual start completion state of the respective engine during a time period such that the operator continues operating the switch mechanism or deactivates the starting devices when the operator stops operating the switch mechanism.

23. The engine starting system as set forth in Claim 20, wherein the sensing device senses the individual start completion state of each engine at least in part by monitoring an engine speed of each engine.

24. An engine starting method for multiple engines, each engine having a starting device to power the engine for starting, the method comprising generating an activation initiating signal, activating the starting devices based upon the activation initiating signal, separately sensing an individual start completion state of each engine, and deactivating each starting device separately in response to detection of an individual start completion state of the corresponding engine.

25. The engine starting method as set forth in Claim 24 additionally comprising operating a switch mechanism to generate the activation initiating signal, counting a preset time period after the activation initiating signal is generated, and deactivating each starting device separately from one another if either the individual start completion state of the respective engine is sensed or the preset time period expires.

26. A system for concurrently starting a plurality of engines of a watercraft, wherein each engine includes a respective starter motor, the system comprising: a sensor circuit that senses a start state of each of the engines; an auto-start switch that can be actuated by an operator to initiate an auto-start process; and a control circuit that is responsive to operator actuation of the auto-start switch by activating the respective starter motors of each of a plurality of engines; wherein the control circuit deactivates each starter motor in response to detection by the sensor circuit that the respective engine has started, such that the starter motors are deactivated asynchronously to one another during said auto-start process.

27. The system of Claim 26, wherein the sensor circuit senses the start states of the engines at least in-part by monitoring an engine speed of each engine.

28. The system of Claim 26, wherein the control circuit is responsive to detection by the sensor circuit that an engine has started by waiting for a preprogrammed delay

period before deactivating the corresponding starter motor, said preprogrammed delay period selected to increase a probability that the engines will remain in a started state following starter motor deactivation.

29. The system of Claim 26, wherein the control circuit further deactivates the respective starter motor of each engine that does not start within an allowable auto-start time period.

30. The system of Claim 29, further comprising an additional switch that allows the operator to manually control said allowable auto-start time period.